

Alg. 2 ch. 7.3 p. 446 TOTAL 21 points

(82)

(3p)

$$(x^2 - 3x + 2) \div (x - 1)$$

$$x - 1 = 0; x = 1$$

$$\begin{array}{r|rrrr} 1 & 1 & -3 & 2 & \\ & & 1 & -2 & \\ \hline & 1 & -2 & 0 & \end{array} \quad \boxed{(x-2)}$$

(84)

(5p)

$$(x^3 - 2x^2 - 22x + 40) \div (x - 4)$$

$$x - 4 = 0; x = 4$$

$$\begin{array}{r|rrrrr} 4 & 1 & -2 & -22 & 40 & \\ & & 4 & 8 & -56 & \\ \hline & 1 & 2 & -14 & -16 & \end{array}$$

$$\boxed{x^2 + 2x - 14x - \frac{16}{x-4}}$$

(86)

(4p)

$$(x^3 - 27) \div (x - 3)$$

$$x - 3 = 0; x = 3$$

$$\begin{array}{r|rrrr} 3 & 1 & 0 & 0 & -27 \\ & & 3 & 9 & 27 \\ \hline & 1 & 3 & 9 & 0 \end{array}$$

$$\boxed{x^2 + 3x + 9}$$

Alg, 2 ch. 7.3 p. 446

(88) $(x^2 - 6) \div (x + 4)$

(4p)

$$\begin{array}{r|rrr} -4 & 1 & 0 & -6 \\ & & -4 & 16 \\ \hline & 1 & -4 & 10 \end{array}$$

$$\begin{aligned} x + 4 &= 0 \\ x &= -4 \end{aligned}$$

$$x - 4 + \frac{10}{x + 4}$$

(90) $(x^5 + 6x^3 - 5x^4 + 5x - 15) \div (x - 3)$

(5p) $(x^5 - 5x^4 + 6x^3 + 5x - 15) \div (x - 3)$

$$x - 3 = 0; x = 3$$

$$\begin{array}{r|rrrrrrr} 3 & 1 & -5 & 6 & 0 & 5 & -15 \\ & & 3 & -6 & 0 & 0 & 15 \\ \hline & 1 & -2 & 0 & 0 & 5 & 0 \end{array}$$

$$x^4 - 2x^3 + 5$$